

WO 00/12711

PCT/US99/20468

SEQUENCE LISTING

<110> INCYTE PHARMACEUTICALS, INC.
 AU-YOUNG, Janice
 BANDMAN, Olga
 TANG, Y. Tom
 REDDY, Roopa
 HILLMAN, Jennifer L.
 YUE, Henry
 LAL, Preeti
 CORLEY, Neil C.
 GUEGLER, Karl J.
 GORGONE, Gina
 BAUGHN, Mariah R.
 AZIMZAI, Yalda

<120> HUMAN MEMBRANE CHANNEL PROTEINS

<130> PF-0589 PCT

<140> To Be Assigned
 <141> Herewith

<150> 09/145,815; unassigned; 09/191,283; unassigned; 09/208,821; unassigned
 09/237,506; unassigned; 09/247,891; unassigned

<151> 1998-09-02; 1998-09-02; 1998-11-12; 1998-11-12; 1998-12-09; 1998-12-09
 1999-01-26; 1999-01-26; 1999-02-10; 1999-02-10

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 <213> Homo sapiens

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 Pro Glu Ala Gly Ser Glu Gln Glu Val Phe Ser Ala Val Glu Gly
 20 25 30
 Pro Ser Ala Glu Glu Thr Pro Ser Asp Thr Glu Ser Pro Glu Val
 35 40 45
 Leu Glu Thr Gln Leu Asp Ala His Gln Gly Leu Leu Gly Met Asp
 50 55 60
 Pro Pro Gly Asp Met Val Asp Phe Val Ala Ala Glu Ser Thr Glu
 65 70 75
 Asp Leu Lys Ala Leu Ser Ser Glu Glu Glu Glu Glu Met Gly Gly
 80 85 90
 Ala Ala Gln Glu Pro Glu Ser Leu Leu Pro Pro Ser Val Leu Asp

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	95		100		105
Gln Ala Ser Val	Ile Ala Glu Arg Phe	Val Ser Ser Phe Ser	Arg		
	110		115		120
Arg Ser Ser Val	Ala Gln Glu Asp Ser	Lys Ser Ser Gly Phe	Gly		
	125		130		135
Ser Pro Arg Leu	Val Ser Arg Ser Ser	Ser Val Leu Ser Leu	Glu		
	140		145		150
Gly Ser Glu Lys	Gly Leu Ala Arg His	Gly Ser Ala Thr Asp	Ser		
	155		160		165
Leu Ser Cys Gln	Leu Ser Pro Glu Val	Asp Ile Ser Val Gly	Val		
	170		175		180
Ala Thr Glu Asp	Ser Pro Ser Val Asn	Gly Met Glu Pro Pro	Ser		
	185		190		195
Pro Gly Cys Pro	Val Glu Pro Asp Arg	Ser Ser Cys Lys Lys	Lys		
	200		205		210
Glu Ser Ala Leu	Ser Thr Arg Asp Arg	Leu Leu Leu Asp Lys	Ile		
	215		220		225
Lys Ser Tyr Tyr	Glu Asn Ala Glu His	His Asp Ala Gly Phe	Ser		
	230		235		240
Val Arg Arg Arg	Glu Ser Leu Ser Tyr	Ile Pro Lys Gly Leu	Val		
	245		250		255
Arg Asn Ser Ile	Ser Arg Phe Asn Ser	Leu Pro Arg Pro Asp	Pro		
	260		265		270
Glu Pro Val Pro	Pro Val Gly Ser Lys	Arg Gln Val Gly Ser	Arg		
	275		280		285
Pro Thr Ser Trp	Ala Leu Phe Glu Leu	Pro Gly Pro Ser Gln	Ala		
	290		295		300
Val Lys Gly Asp	Pro Pro Pro Ile Ser	Asp Ala Glu Phe Arg	Pro		
	305		310		315
Ser Ser Glu Ile	Val Lys Ile Trp Glu	Gly Met Glu Ser Ser	Gly		
	320		325		330
Gly Ser Pro Gly	Lys Gly Pro Gly Gln	Gly Gln Ala Asn Gly	Phe		
	335		340		345
Asp Leu His Glu	Pro Leu Phe Ile Leu	Glu Glu His Glu Leu	Gly		
	350		355		360
Ala Ile Thr Glu	Glu Ser Ala Thr Ala	Ser Pro Glu Ser Ser	Ser		
	365		370		375
Pro Thr Glu Gly	Arg Ser Pro Ala His	Leu Ala Arg Glu Leu	Lys		
	380		385		390
Glu Leu Val Lys	Glu Leu Ser Ser Ser	Thr Gln Gly Glu Leu	Val		
	395		400		405
Ala Pro Leu His	Pro Arg Ile Val Gln	Leu Ser His Val Met	Asp		
	410		415		420
Ser His Val Ser	Glu Arg Val Lys Asn	Lys Val Tyr Gln Leu	Ala		
	425		430		435
Arg Gln Tyr Ser	Leu Arg Ile Lys Ser	Asn Lys Pro Val Met	Ala		
	440		445		450
Arg Pro Pro Leu	Gln Trp Glu Lys Val	Ala Pro Glu Arg Asp	Gly		
	455		460		465
Lys Ser Pro Thr	Val Pro Cys Leu Gln	Glu Glu Ala Gly Glu	Pro		
	470		475		480
Leu Gly Gly Lys	Gly Lys Arg Lys Pro	Val Leu Ser Leu Phe	Asp		
	485		490		495
Tyr Glu Gln Leu	Met Ala Gln Glu His	Ser Pro Pro Lys Pro	Ser		
	500		505		510
Ser Ala Gly Glu	Met Ser Pro Gln Arg	Phe Phe Phe Asn Pro	Pro		

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515	520	525
Ala Val Ser Gln Arg Thr Thr Ser Pro Gly Gly Arg Pro Ser Ala		
530	535	540
Arg Ser Pro Leu Ser Pro Thr Glu Thr Phe Ser Trp Pro Asp Val		
545	550	555
Arg Glu Leu Cys Ser Lys Tyr Ala Ser Arg Asp Glu Ala Arg Arg		
560	565	570
Ala Gly Gly Gly Arg Pro Arg Gly Pro Pro Val Asn Arg Ser His		
575	580	585
Ser Val Pro Glu Asn Met Val Glu Pro Pro Leu Ser Gly Arg Val		
590	595	600
Gly Arg Cys Arg Ser Leu Ser Thr Lys Arg Gly Arg Gly Gly Gly		
605	610	615
Glu Ala Ala Gln Ser Pro Gly Pro Leu Pro Gln Ser Lys Pro Asp		
620	625	630
Gly Gly Glu Thr Leu Tyr Val Thr Ala Asp Leu Thr Leu Glu Asp		
635	640	645
Asn Arg Arg Val Ile Val Met Glu Lys Gly Pro Leu Pro Ser Pro		
650	655	660
Thr Ala Gly Leu Glu Glu Ser Ser Gly Gln Gly Pro Ser Ser Pro		
665	670	675
Val Ala Leu Leu Gly Gln Val Gln Asp Phe Gln Gln Ser Ala Glu		
680	685	690
Cys Gln Pro Lys Glu Glu Gly Ser Arg Asp Pro Ala Asp Pro Ser		
695	700	705
Gln Gln Gly Arg Val Arg Asn Leu Arg Glu Lys Phe Gln Ala Leu		
710	715	720
Asn Ser Val Gly		

<210> 2

<211> 257

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 4094907CD1

<400> 2

Met Ser Arg Pro Leu Ile Thr Arg Ser Pro Ala Ser Pro Leu Asn		
1	5	10
Asn Gln Gly Ile Pro Thr Pro Ala Gln Leu Thr Lys Ser Asn Ala		
20	25	30
Pro Val His Ile Asp Val Gly Gly His Met Tyr Thr Ser Ser Leu		
35	40	45
Ala Thr Leu Thr Lys Tyr Pro Glu Ser Arg Ile Gly Arg Leu Phe		
50	55	60
Asp Gly Thr Glu Pro Ile Val Leu Asp Ser Leu Lys Gln His Tyr		
65	70	75
Phe Ile Asp Arg Asp Gly Gln Met Phe Arg Tyr Ile Leu Asn Phe		
80	85	90
Leu Arg Thr Ser Lys Leu Leu Ile Pro Asp Asp Phe Lys Asp Tyr		
95	100	105
Thr Leu Leu Tyr Glu Glu Ala Lys Tyr Phe Gln Leu Gln Pro Met		
110	115	120

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Leu Leu Glu Met Glu Arg Trp Lys Gln Asp Arg Glu Thr Gly Arg
      125                      130                      135
Phe Ser Arg Pro Cys Glu Cys Leu Val Val Arg Val Ala Pro Asp
      140                      145                      150
Leu Gly Glu Arg Ile Thr Leu Ser Gly Asp Lys Ser Leu Ile Glu
      155                      160                      165
Glu Val Phe Pro Glu Ile Gly Asp Val Met Cys Asn Ser Val Asn
      170                      175                      180
Ala Gly Trp Asn His Asp Ser Thr His Val Ile Arg Phe Pro Leu
      185                      190                      195
Asn Gly Tyr Cys His Leu Asn Ser Val Gln Val Leu Glu Arg Leu
      200                      205                      210
Gln Gln Arg Gly Phe Glu Ile Val Gly Ser Cys Gly Gly Gly Val
      215                      220                      225
Asp Ser Ser Gln Phe Ser Glu Tyr Val Leu Arg Arg Glu Leu Arg
      230                      235                      240
Arg Thr Pro Arg Val Pro Ser Val Ile Arg Ile Lys Gln Glu Pro
      245                      250                      255
Leu Asp

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<210> 3
<211> 377
<212> PRT
<213> Homo sapiens

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<220>
<221> misc_feature
<223> Incyte ID No: 518158CD1

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  1           5           10           15
Lys Arg Leu Leu Glu Gln Glu Lys Ser Leu Ala Gly Trp Ala Leu
      20           25           30
Val Leu Ala Gly Thr Gly Ile Gly Leu Met Val Leu His Ala Glu
      35           40           45
Met Leu Trp Phe Gly Gly Cys Ser Trp Ala Leu Tyr Leu Phe Leu
      50           55           60
Val Lys Cys Thr Ile Ser Ile Ser Thr Phe Leu Leu Leu Cys Leu
      65           70           75
Ile Val Ala Phe His Ala Lys Glu Val Gln Leu Phe Met Thr Asp
      80           85           90
Asn Gly Leu Arg Asp Trp Arg Val Ala Leu Thr Gly Arg Gln Ala
      95          100          105
Ala Gln Ile Val Leu Glu Leu Val Val Cys Gly Leu His Pro Ala
      110         115         120
Pro Val Arg Gly Pro Pro Cys Val Gln Asp Leu Gly Ala Pro Leu
      125         130         135
Thr Ser Pro Gln Pro Trp Pro Gly Phe Leu Gly Gln Gly Glu Ala
      140         145         150
Leu Leu Ser Leu Ala Met Leu Leu Leu Gly Leu Thr Leu Gly Leu
      155         160         165
Trp Leu Thr Thr Ala Trp Val Leu Ser Val Ala Glu Arg Gln Ala
      170         175         180
Val Asn Ala Thr Gly His Leu Ser Asp Thr Leu Trp Leu Ile Pro

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	185		190		195
Ile Thr Phe Leu Thr	Ile Gly Tyr Gly	Asp Val Val Pro Gly Thr			
	200		205		210
Met Trp Gly Lys Ile	Val Cys Leu Cys	Thr Gly Val Met Gly Val			
	215		220		225
Cys Cys Thr Ala Leu	Leu Val Ala Val	Val Ala Arg Lys Leu Glu			
	230		235		240
Phe Asn Lys Ala Glu	Lys His Val His	Asn Phe Met Met Asp Ile			
	245		250		255
Gln Tyr Thr Lys Glu	Met Lys Glu Ser	Ala Ala Arg Val Leu Gln			
	260		265		270
Glu Ala Trp Met Phe	Tyr Lys His Thr	Arg Arg Lys Glu Ser His			
	275		280		285
Ala Ala Arg Arg His	Gln Arg Lys Leu	Leu Ala Ala Ile Asn Ala			
	290		295		300
Phe Arg Gln Val Arg	Leu Lys His Arg	Lys Leu Arg Glu Gln Val			
	305		310		315
Asn Ser Met Val Asp	Ile Ser Lys Met	His Met Ile Leu Tyr Asp			
	320		325		330
Leu Gln Gln Asn Leu	Ser Ser Ser His	Arg Ala Leu Glu Lys Gln			
	335		340		345
Ile Asp Thr Leu Ala	Gly Lys Leu Asp	Ala Leu Thr Glu Leu Leu			
	350		355		360
Ser Thr Ala Leu Gly	Pro Arg Gln Leu	Pro Glu Pro Ser Gln Gln			
	365		370		375
Ser Lys					

<210> 4
 <211> 491
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte ID No: 602926CD1

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 1 5 10 15
 Leu Val Asn Leu Asn Val Gly Gly Phe Lys Gln Ser Val Asp Gln
 20 25 30
 Ser Thr Leu Leu Arg Phe Pro His Thr Arg Leu Gly Lys Leu Leu
 35 40 45
 Thr Cys His Ser Glu Glu Ala Ile Leu Glu Leu Cys Asp Asp Tyr
 50 55 60
 Ser Val Ala Asp Lys Glu Tyr Tyr Phe Asp Arg Asn Pro Ser Ser
 65 70 75
 Phe Arg Tyr Val Leu Asn Phe Tyr Tyr Thr Gly Lys Leu His Val
 80 85 90
 Met Glu Glu Leu Cys Val Phe Ser Phe Cys Gln Glu Ile Glu Tyr
 95 100 105
 Trp Gly Ile Asn Glu Leu Phe Ile Asp Ser Cys Cys Ser Asn Arg
 110 115 120
 Tyr Gln Glu Arg Lys Glu Glu Asn His Glu Lys Asp Trp Asp Gln
 125 130 135

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Lys Ser His Asp Val Ser Thr Asp Ser Ser Phe Glu Glu Ser Ser	140	145	150
Leu Phe Glu Lys Glu Leu Glu Lys Phe Asp Thr Leu Arg Phe Gly	155	160	165
Gln Leu Arg Lys Lys Ile Trp Ile Arg Met Glu Asn Pro Ala Tyr	170	175	180
Cys Leu Ser Ala Lys Leu Ile Ala Ile Ser Ser Leu Ser Val Val	185	190	195
Leu Ala Ser Ile Val Ala Met Cys Val His Ser Met Ser Glu Phe	200	205	210
Gln Asn Glu Asp Gly Glu Val Asp Asp Pro Val Leu Glu Gly Val	215	220	225
Glu Ile Ala Cys Ile Ala Trp Phe Thr Gly Glu Leu Ala Val Arg	230	235	240
Leu Ala Ala Ala Pro Cys Gln Lys Lys Phe Trp Lys Asn Pro Leu	245	250	255
Asn Ile Ile Asp Phe Val Ser Ile Ile Pro Phe Tyr Ala Thr Leu	260	265	270
Ala Val Asp Thr Lys Glu Glu Glu Ser Glu Asp Ile Glu Asn Met	275	280	285
Gly Lys Val Val Gln Ile Leu Arg Leu Met Arg Ile Phe Arg Ile	290	295	300
Leu Lys Leu Ala Arg His Ser Val Gly Leu Arg Ser Leu Gly Ala	305	310	315
Thr Leu Arg His Ser Tyr His Glu Val Gly Leu Leu Leu Leu Phe	320	325	330
Leu Ser Val Gly Ile Ser Ile Phe Ser Val Leu Ile Tyr Ser Val	335	340	345
Glu Lys Asp Asp His Thr Ser Ser Leu Thr Ser Ile Pro Ile Cys	350	355	360
Trp Trp Trp Ala Thr Ile Ser Met Thr Thr Val Gly Tyr Gly Asp	365	370	375
Thr His Pro Val Thr Leu Ala Gly Lys Leu Ile Ala Ser Thr Cys	380	385	390
Ile Ile Cys Gly Ile Leu Val Val Ala Leu Pro Ile Thr Ile Ile	395	400	405
Phe Asn Lys Phe Ser Lys Tyr Tyr Gln Lys Gln Lys Asp Ile Asp	410	415	420
Val Asp Gln Cys Ser Glu Asp Ala Pro Glu Lys Cys His Glu Leu	425	430	435
Pro Tyr Phe Asn Ile Arg Asp Ile Tyr Ala Gln Arg Met His Ala	440	445	450
Phe Ile Thr Ser Leu Ser Ser Val Gly Ile Val Val Ser Asp Pro	455	460	465
Asp Ser Thr Asp Ala Ser Ser Ile Glu Asp Asn Glu Asp Ile Cys	470	475	480
Asn Thr Thr Ser Leu Glu Asn Cys Thr Ala Lys	485	490	

<210> 5

<211> 341

<212> PRT

<213> Homo sapiens

<220>

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PCT/US99/20468

<221> misc_feature

<223> Incyte ID No: 922119CD1

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Val	Ser	Trp	Ser	Val	Ile	Ala	Lys	Ile	Gln	Glu	Ile	Leu	Gln	Arg	
				20					25					30	
Lys	Met	Val	Arg	Glu	Phe	Leu	Ala	Glu	Phe	Met	Ser	Thr	Tyr	Val	
				35					40					45	
Met	Met	Val	Phe	Gly	Leu	Gly	Ser	Val	Ala	His	Met	Val	Leu	Asn	
				50					55					60	
Lys	Lys	Tyr	Gly	Ser	Tyr	Leu	Gly	Val	Asn	Leu	Gly	Phe	Gly	Phe	
				65					70					75	
Gly	Val	Thr	Met	Gly	Val	His	Val	Ala	Gly	Arg	Ile	Ser	Gly	Ala	
				80					85					90	
His	Met	Asn	Ala	Ala	Val	Thr	Phe	Ala	Asn	Cys	Ala	Leu	Gly	Arg	
				95					100					105	
Val	Pro	Trp	Arg	Lys	Phe	Pro	Val	Tyr	Val	Leu	Gly	Gln	Phe	Leu	
				110					115					120	
Gly	Ser	Phe	Leu	Ala	Ala	Ala	Thr	Ile	Tyr	Ser	Leu	Phe	Tyr	Thr	
				125					130					135	
Ala	Ile	Leu	His	Phe	Ser	Gly	Gly	Gln	Leu	Met	Val	Thr	Gly	Pro	
				140					145					150	
Val	Ala	Thr	Ala	Gly	Ile	Phe	Ala	Thr	Tyr	Leu	Pro	Asp	His	Met	
				155					160					165	
Thr	Leu	Trp	Arg	Gly	Phe	Leu	Asn	Glu	Ala	Trp	Leu	Thr	Gly	Met	
				170					175					180	
Leu	Gln	Leu	Cys	Leu	Phe	Ala	Ile	Thr	Asp	Gln	Glu	Asn	Asn	Pro	
				185					190					195	
Ala	Leu	Pro	Gly	Thr	Glu	Ala	Leu	Val	Ile	Gly	Ile	Leu	Val	Val	
				200					205					210	
Ile	Ile	Gly	Val	Ser	Leu	Gly	Met	Asn	Thr	Gly	Tyr	Ala	Ile	Asn	
				215					220					225	
Pro	Ser	Arg	Asp	Leu	Pro	Pro	Arg	Ile	Phe	Thr	Phe	Ile	Ala	Gly	
				230					235					240	
Trp	Gly	Lys	Gln	Val	Phe	Ser	Asn	Gly	Glu	Asn	Trp	Trp	Trp	Val	
				245					250					255	
Pro	Val	Val	Ala	Pro	Leu	Leu	Gly	Ala	Tyr	Leu	Gly	Gly	Ile	Ile	
				260					265					270	
Tyr	Leu	Val	Phe	Ile	Gly	Ser	Thr	Ile	Pro	Arg	Glu	Pro	Leu	Lys	
				275					280					285	
Leu	Glu	Asp	Ser	Val	Ala	Tyr	Glu	Asp	His	Gly	Ile	Thr	Val	Leu	
				290					295					300	
Pro	Lys	Met	Gly	Ser	His	Glu	Pro	Thr	Ile	Ser	Pro	Leu	Thr	Pro	
				305					310					315	
Val	Ser	Val	Ser	Pro	Ala	Asn	Arg	Ser	Ser	Val	His	Pro	Ala	Pro	
				320					325					330	
Pro	Leu	His	Glu	Ser	Met	Ala	Leu	Glu	His	Phe					
				335					340						

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<211> 476

<212> PRT

<213> Homo sapiens

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<220>

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<223> Incyte ID No: 2666782CD1

<400> 6

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Met Gly Ile Lys Phe Leu Glu Val Ile Lys Pro Phe Cys Ala Val
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Leu Pro Glu Ile Gln Lys Pro Glu Arg Lys Ile Gln Phe Arg Glu
           20           25           30
Lys Val Leu Trp Thr Ala Ile Thr Leu Phe Ile Phe Leu Val Cys
           35           40           45
Cys Gln Ile Pro Leu Phe Gly Ile Met Ser Ser Asp Ser Ala Asp
           50           55           60
Pro Phe Tyr Trp Met Arg Val Ile Leu Ala Ser Asn Arg Gly Thr
           65           70           75
Leu Met Glu Leu Gly Ile Ser Pro Ile Val Thr Ser Gly Leu Ile
           80           85           90
Met Gln Leu Leu Ala Gly Ala Lys Ile Ile Glu Val Gly Asp Thr
           95          100          105
Pro Lys Asp Arg Ala Leu Phe Asn Gly Ala Gln Lys Leu Phe Gly
          110          115          120
Met Ile Ile Thr Ile Gly Gln Ala Ile Val Tyr Val Met Thr Gly
          125          130          135
Met Tyr Gly Asp Pro Ala Glu Met Gly Ala Gly Ile Cys Leu Leu
          140          145          150
Ile Ile Ile Gln Leu Phe Val Thr Ser Leu Ile Val Leu Leu Leu
          155          160          165
Asp Glu Leu Leu Gln Thr Gly Tyr Ser Leu Gly Ser Gly Ile Ser
          170          175          180
Leu Val Ile Ala Thr Asn Ile Cys Glu Thr Ile Val Trp Lys Ala
          185          190          195
Phe Ser Pro Thr Thr Ile Asn Thr Gly Arg Gly Thr Glu Phe Glu
          200          205          210
Gly Ala Val Ile Ala Leu Phe His Leu Leu Ala Thr Arg Thr Asp
          215          220          225
Lys Val Arg Ala Leu Arg Glu Ala Phe Tyr Arg Gln Asn Leu Pro
          230          235          240
Asn Leu Met Asn Leu Ile Ala Thr Val Phe Val Phe Ala Val Val
          245          250          255
Ile Tyr Phe Gln Gly Phe Arg Val Asp Leu Pro Ile Lys Ser Ala
          260          265          270
Arg Tyr Arg Gly Gln Tyr Ser Ser Tyr Pro Ile Lys Leu Phe Tyr
          275          280          285
Thr Ser Asn Ile Pro Ile Ile Leu Gln Ser Ala Leu Val Ser Asn
          290          295          300
Leu Tyr Val Ile Ser Gln Met Leu Ser Val Arg Phe Ser Gly Asn
          305          310          315
Phe Leu Val Asn Leu Leu Gly Gln Trp Ala Asp Val Ser Gly Gly
          320          325          330
Gly Pro Ala Arg Ser Tyr Pro Val Gly Gly Leu Cys Tyr Tyr Leu
          335          340          345
Ser Pro Pro Glu Ser Met Gly Ala Ile Phe Glu Asp Pro Val His
          350          355          360
Val Val Val Tyr Ile Ile Phe Met Leu Gly Ser Cys Ala Phe Phe
          365          370          375
Ser Lys Thr Trp Ile Glu Val Ser Gly Ser Ser Ala Lys Asp Val

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380	385	390
Ala Lys Gln Leu Lys Glu Gln Gln Met	Val Met Arg Gly His Arg	
395	400	405
Asp Thr Ser Met Val His Glu Leu Asn	Arg Tyr Ile Pro Thr Ala	
410	415	420
Ala Ala Phe Gly Gly Leu Cys Ile Gly	Ala Leu Ser Val Leu Ala	
425	430	435
Asp Phe Leu Gly Ala Ile Gly Ser Gly	Thr Gly Ile Leu Leu Ala	
440	445	450
Val Thr Ile Ile Tyr Gln Tyr Phe Glu	Ile Phe Val Lys Glu Gln	
455	460	465
Ala Glu Val Gly Gly Met Gly Ala Leu	Phe Phe	
470	475	

<210> 7

<211> 266

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2731369CD1

<400> 7

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Tyr Ser Thr Val Leu Ser Arg Ile Trp Leu Ser Val Val Phe Ile	
20 25 30	
Phe Arg Val Leu Val Tyr Val Val Ala Ala Glu Glu Val Trp Asp	
35 40 45	
Asp Glu Gln Lys Asp Phe Asp Cys Asn Thr Lys Gln Pro Gly Cys	
50 55 60	
Thr Asn Val Cys Tyr Asp Asn Tyr Phe Pro Ile Ser Asn Ile Arg	
65 70 75	
Leu Trp Ala Leu Gln Leu Ile Leu Val Thr Cys Pro Ser Leu Leu	
80 85 90	
Val Val Met His Val Ala Tyr Arg Glu Glu Arg Glu Arg Lys His	
95 100 105	
His Leu Lys His Gly Pro Asn Ala Pro Ser Leu Tyr Asp Asn Leu	
110 115 120	
Ser Lys Lys Arg Gly Gly Leu Trp Trp Thr Tyr Leu Leu Ser Leu	
125 130 135	
Ile Phe Lys Ala Ala Val Asp Ala Gly Phe Leu Tyr Ile Phe His	
140 145 150	
Arg Leu Tyr Lys Asp Tyr Asp Met Pro Arg Val Val Ala Cys Ser	
155 160 165	
Val Glu Pro Cys Pro His Thr Val Asp Cys Tyr Ile Ser Arg Pro	
170 175 180	
Thr Glu Lys Lys Val Phe Thr Tyr Phe Met Val Thr Thr Ala Ala	
185 190 195	
Ile Cys Ile Leu Leu Asn Leu Ser Glu Val Phe Tyr Leu Val Gly	
200 205 210	
Lys Arg Cys Met Glu Ile Phe Gly Pro Arg His Arg Arg Pro Arg	
215 220 225	
Cys Arg Glu Cys Leu Pro Asp Thr Cys Pro Pro Tyr Val Leu Ser	

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	230		235		240
Gln Gly Gly His	Pro Glu Asp Gly Asn	Ser Val Leu Met Lys	Ala		
	245		250		255
Gly Ser Ala Pro	Val Asp Ala Gly Gly Tyr	Pro			
	260		265		

<210> 8
 <211> 182
 <212> PRT
 <213> Homo sapiens

<220>
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 <223> Incyte ID No: 1375415CD1

<400> 8

Met Ala Glu Phe	Pro Ser Lys Val	Ser Thr Arg Thr	Ser Ser Pro
1	5	10	15
Ala Gln Gly Ala	Glu Ala Ser Val	Ser Ala Leu Arg	Pro Asp Leu
	20	25	30
Gly Phe Val Arg	Ser Arg Leu Gly	Ala Leu Met Leu	Leu Gln Leu
	35	40	45
Val Leu Gly Leu	Leu Val Trp Ala	Leu Ile Ala Asp	Thr Pro Tyr
	50	55	60
His Leu Tyr Pro	Ala Tyr Gly Trp	Val Met Phe Val	Ala Val Phe
	65	70	75
Leu Trp Leu Val	Thr Ile Val Leu	Phe Asn Leu Tyr	Leu Phe Gln
	80	85	90
Leu His Met Lys	Leu Tyr Met Val	Pro Trp Pro Leu	Val Leu Met
	95	100	105
Ile Phe Asn Ile	Ser Ala Thr Val	Leu Tyr Ile Thr	Ala Phe Ile
	110	115	120
Ala Cys Ser Ala	Ala Val Asp Leu	Thr Ser Leu Arg	Gly Thr Arg
	125	130	135
Pro Tyr Asn Gln	Arg Ala Ala Ala	Ser Phe Phe Ala	Cys Leu Val
	140	145	150
Met Ile Ala Tyr	Gly Val Ser Ala	Phe Phe Ser Tyr	Gln Ala Trp
	155	160	165
Arg Gly Val Gly	Ser Asn Ala Ala	Thr Ser Gln Met	Ala Gly Gly
	170	175	180
Tyr Ala			

<210> 9
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 <212> PRT
 <213> Homo sapiens

<220>
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 <223> Incyte ID No: 2733282CD1

<400> 9

Met Thr Gln Arg	Ser Ile Ala Gly	Pro Ile Cys Asn	Leu Lys Phe
1	5	10	15

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Val Thr Leu Leu Val Ala Leu Ser Ser Glu Leu Pro Phe Leu Gly	20	25	30
Ala Gly Val Gln Leu Gln Asp Asn Gly Tyr Asn Gly Leu Leu Ile	35	40	45
Ala Ile Asn Pro Gln Val Pro Glu Asn Gln Asn Leu Ile Ser Asn	50	55	60
Ile Lys Glu Met Ile Thr Glu Ala Ser Phe Tyr Leu Phe Asn Ala	65	70	75
Thr Lys Arg Arg Val Phe Phe Arg Asn Ile Lys Ile Leu Ile Pro	80	85	90
Ala Thr Trp Lys Ala Asn Asn Asn Ser Lys Ile Lys Gln Glu Ser	95	100	105
Tyr Glu Lys Ala Asn Val Ile Val Thr Asp Trp Tyr Gly Ala His	110	115	120
Gly Asp Asp Pro Tyr Thr Leu Gln Tyr Arg Gly Cys Gly Lys Glu	125	130	135
Gly Lys Tyr Ile His Phe Thr Pro Asn Phe Leu Leu Asn Asp Asn	140	145	150
Leu Thr Ala Gly Tyr Gly Ser Arg Gly Arg Val Phe Val His Glu	155	160	165
Trp Ala His Leu Arg Trp Gly Val Phe Asp Glu Tyr Asn Asn Asp	170	175	180
Lys Pro Phe Tyr Ile Asn Gly Gln Asn Gln Ile Lys Val Thr Arg	185	190	195
Cys Ser Ser Asp Ile Thr Gly Ile Phe Val Cys Glu Lys Gly Pro	200	205	210
Cys Pro Gln Glu Asn Cys Ile Ile Ser Lys Leu Phe Lys Glu Gly	215	220	225
Cys Thr Phe Ile Tyr Asn Ser Thr Gln Asn Ala Thr Ala Ser Ile	230	235	240
Met Phe Met Gln Ser Tyr Leu Cys Gly Glu Ile Cys Asn Ala Ser	245	250	255
Thr His Asn Gln Glu Ala Pro Asn Leu Gln Asn Gln Met Cys Ser	260	265	270
Leu Arg Ser Ala Trp Asp Val Ile Thr Asp Ser Ala Asp Phe His	275	280	285
His Ser Phe Pro Met Asn Gly Thr Glu Leu Pro Pro Pro Pro Thr	290	295	300
Phe Ser Leu Val Glu Ala Gly Asp Lys Val Val Cys Leu Val Leu	305	310	315
Asp Val Ser Ser Lys Met Ala Glu Ala Asp Arg Leu Leu Gln Leu	320	325	330
Gln Gln Ala Ala Glu Phe Tyr Leu Met Gln Ile Val Glu Ile His	335	340	345
Thr Phe Val Gly Ile Ala Ser Phe Asp Ser Lys Gly Glu Ile Arg	350	355	360
Ala Gln Leu His Gln Ile Asn Ser Asn Asp Asp Arg Lys Leu Leu	365	370	375
Val Ser Tyr Leu Pro Thr Thr Val Ser Ala Lys Thr Asp Ile Ser	380	385	390
Ile Cys Ser Gly Leu Lys Lys Gly Phe Glu Val Val Glu Lys Leu	395	400	405
Asn Gly Lys Ala Tyr Gly Ser Val Met Ile Leu Val Thr Ser Gly	410	415	420
Asp Asp Lys Leu Leu Gly Asn Cys Leu Pro Thr Val Leu Ser Ser	425	430	435

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Gly Ser Thr Ile His Ser Ile Ala Leu Gly Ser Ser Ala Ala Pro	440	445	450
Asn Leu Glu Glu Leu Ser Arg Leu Thr Gly Gly Leu Lys Phe Phe	455	460	465
Val Pro Asp Ile Ser Asn Ser Asn Ser Met Ile Asp Ala Phe Ser	470	475	480
Arg Ile Ser Ser Gly Thr Gly Asp Ile Phe Gln Gln His Ile Gln	485	490	495
Leu Glu Ser Thr Gly Glu Asn Val Lys Pro His His Gln Leu Lys	500	505	510
Asn Thr Val Thr Val Asp Asn Thr Val Gly Asn Asp Thr Met Phe	515	520	525
Leu Val Thr Trp Gln Ala Ser Gly Pro Pro Glu Ile Ile Leu Phe	530	535	540
Asp Pro Asp Gly Arg Lys Tyr Tyr Thr Asn Asn Phe Ile Thr Asn	545	550	555
Leu Thr Phe Arg Thr Ala Ser Leu Trp Ile Pro Gly Thr Ala Lys	560	565	570
Pro Gly His Trp Thr Tyr Thr Leu Asn Asn Thr His His Ser Leu	575	580	585
Gln Ala Leu Lys Val Thr Val Thr Ser Arg Ala Ser Asn Ser Ala	590	595	600
Val Pro Pro Ala Thr Val Glu Ala Phe Val Glu Arg Asp Ser Leu	605	610	615
His Phe Pro His Pro Val Met Ile Tyr Ala Asn Val Lys Gln Gly	620	625	630
Phe Tyr Pro Ile Leu Asn Ala Thr Val Thr Ala Thr Val Glu Pro	635	640	645
Glu Thr Gly Asp Pro Val Thr Leu Arg Leu Leu Asp Asp Gly Ala	650	655	660
Gly Ala Asp Val Ile Lys Asn Asp Gly Ile Tyr Ser Arg Tyr Phe	665	670	675
Phe Ser Phe Ala Ala Asn Gly Arg Tyr Ser Leu Lys Val His Val	680	685	690
Asn His Ser Pro Ser Ile Ser Thr Pro Ala His Ser Ile Pro Gly	695	700	705
Ser His Ala Met Tyr Val Pro Gly Tyr Thr Ala Asn Gly Asn Ile	710	715	720
Gln Met Asn Ala Pro Arg Lys Ser Val Gly Arg Asn Glu Glu Glu	725	730	735
Arg Lys Trp Gly Phe Ser Arg Val Ser Ser Gly Gly Ser Phe Ser	740	745	750
Val Leu Gly Val Pro Ala Gly Pro His Pro Asp Val Phe Pro Pro	755	760	765
Cys Lys Ile Ile Asp Leu Glu Ala Val Lys Val Glu Glu Glu Leu	770	775	780
Thr Leu Ser Trp Thr Ala Pro Gly Glu Asp Phe Asp Gln Gly Gln	785	790	795
Ala Thr Ser Tyr Glu Ile Arg Met Ser Lys Ser Leu Gln Asn Ile	800	805	810
Gln Asp Asp Phe Asn Asn Ala Ile Leu Val Asn Thr Ser Lys Arg	815	820	825
Asn Pro Gln Gln Ala Gly Ile Arg Glu Ile Phe Thr Phe Ser Pro	830	835	840
Gln Ile Ser Thr Asn Gly Pro Glu His Gln Pro Asn Gly Glu Thr	845	850	855

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His	Glu	Ser	His	Arg	Ile	Tyr	Val	Ala	Ile	Arg	Ala	Met	Asp	Arg
				860					865					870
Asn	Ser	Leu	Gln	Ser	Ala	Val	Ser	Asn	Ile	Ala	Gln	Ala	Pro	Leu
				875					880					885
Phe	Ile	Pro	Pro	Asn	Ser	Asp	Pro	Val	Pro	Ala	Arg	Asp	Tyr	Leu
				890					895					900
Ile	Leu	Lys	Gly	Val	Leu	Thr	Ala	Met	Gly	Leu	Ile	Gly	Ile	Ile
				905					910					915
Cys	Leu	Ile	Ile	Val	Val	Thr	His	His	Thr	Leu	Ser	Arg	Lys	Lys
				920					925					930
Arg	Ala	Asp	Lys	Lys	Glu	Asn	Gly	Thr	Lys	Leu	Leu			
				935					940					

<210> 10

<211> 519

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3148427CD1

<400> 10

Met	Glu	Glu	Met	Phe	His	Lys	Lys	Ser	Glu	Ala	Val	Arg	Arg	Leu
1				5					10					15
Val	Glu	Ala	Ala	Glu	Glu	Ala	His	Leu	Lys	His	Glu	Phe	Asp	Ala
				20					25					30
Asp	Leu	Gln	Tyr	Glu	Tyr	Phe	Asn	Ala	Val	Leu	Ile	Asn	Glu	Arg
				35					40					45
Asp	Lys	Asp	Gly	Asn	Phe	Leu	Glu	Leu	Gly	Lys	Glu	Phe	Ile	Leu
				50					55					60
Ala	Pro	Asn	Asp	His	Phe	Asn	Asn	Leu	Pro	Val	Asn	Ile	Ser	Leu
				65					70					75
Ser	Asp	Val	Gln	Val	Pro	Thr	Asn	Met	Tyr	Asn	Lys	Asp	Pro	Ala
				80					85					90
Ile	Val	Asn	Gly	Val	Tyr	Trp	Ser	Glu	Ser	Leu	Asn	Lys	Val	Phe
				95					100					105
Val	Asp	Asn	Phe	Asp	Arg	Asp	Pro	Ser	Leu	Ile	Trp	Gln	Tyr	Phe
				110					115					120
Gly	Ser	Ala	Lys	Gly	Phe	Phe	Arg	Gln	Tyr	Pro	Gly	Ile	Lys	Trp
				125					130					135
Glu	Pro	Asp	Glu	Asn	Gly	Val	Ile	Ala	Phe	Asp	Cys	Arg	Asn	Arg
				140					145					150
Lys	Trp	Tyr	Ile	Gln	Ala	Ala	Thr	Ser	Pro	Lys	Asp	Val	Val	Ile
				155					160					165
Leu	Val	Asp	Val	Ser	Gly	Ser	Met	Lys	Gly	Leu	Arg	Leu	Thr	Ile
				170					175					180
Ala	Lys	Gln	Thr	Val	Ser	Ser	Ile	Leu	Asp	Thr	Leu	Gly	Asp	Asp
				185					190					195
Asp	Phe	Phe	Asn	Ile	Ile	Ala	Tyr	Asn	Glu	Glu	Leu	His	Tyr	Val
				200					205					210
Glu	Pro	Cys	Leu	Asn	Gly	Thr	Leu	Val	Gln	Ala	Asp	Arg	Thr	Asn
				215					220					225
Lys	Glu	His	Phe	Arg	Glu	His	Leu	Asp	Lys	Leu	Phe	Ala	Lys	Gly
				230					235					240

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Ile Gly Met Leu Asp Ile Ala Leu Asn Glu Ala Phe Asn Ile Leu
      245                      250                      255
Ser Asp Phe Asn His Thr Gly Gln Gly Ser Ile Cys Ser Gln Ala
      260                      265                      270
Ile Met Leu Ile Thr Asp Gly Ala Val Asp Thr Tyr Asp Thr Ile
      275                      280                      285
Phe Ala Lys Tyr Asn Trp Pro Asp Arg Lys Val Arg Ile Phe Thr
      290                      295                      300
Tyr Leu Ile Gly Arg Glu Ala Ala Phe Ala Asp Asn Leu Lys Trp
      305                      310                      315
Met Ala Cys Ala Asn Lys Gly Phe Phe Thr Gln Ile Ser Thr Leu
      320                      325                      330
Ala Asp Val Gln Glu Asn Val Met Glu Tyr Leu His Val Leu Ser
      335                      340                      345
Arg Pro Lys Val Ile Asp Gln Glu His Asp Val Val Trp Thr Glu
      350                      355                      360
Ala Tyr Ile Asp Ser Thr Leu Pro Gln Ala Gln Lys Leu Thr Asp
      365                      370                      375
Asp Gln Gly Pro Val Leu Met Thr Thr Val Ala Met Pro Val Phe
      380                      385                      390
Ser Lys Gln Asn Glu Thr Arg Ser Lys Gly Ile Leu Leu Gly Val
      395                      400                      405
Val Gly Thr Asp Val Pro Val Lys Glu Leu Leu Lys Thr Ile Pro
      410                      415                      420
Lys Tyr Lys Leu Gly Ile His Gly Tyr Ala Phe Ala Ile Thr Asn
      425                      430                      435
Asn Gly Tyr Ile Leu Thr His Pro Glu Leu Arg Leu Leu Tyr Glu
      440                      445                      450
Glu Gly Lys Lys Arg Arg Lys Pro Asn Tyr Ser Ser Val Asp Leu
      455                      460                      465
Ser Glu Val Glu Trp Glu Asp Arg Asp Asp Val Leu Arg Asn Ala
      470                      475                      480
Met Val Asn Arg Lys Thr Gly Lys Phe Ser Met Glu Val Lys Lys
      485                      490                      495
Thr Val Asp Lys Gly Val His Phe Ser Gln Thr Phe Leu Leu Leu
      500                      505                      510
Asn Leu Lys Gln Thr Thr Val Lys Asn
      515

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<210> 11

<211> 251

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3342358CD1

<400> 11

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Met Thr Asp Ser Ala Thr Ala Asn Gly Asp Asp Arg Asp Pro Glu
  1                      5                      10                      15
Ile Glu Leu Phe Val Lys Ala Gly Ile Asp Gly Glu Ser Ile Gly
      20                      25                      30
Asn Cys Pro Phe Ser Gln Arg Leu Phe Met Ile Leu Trp Leu Lys
      35                      40                      45

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Gly Val Val Phe Asn Val Thr Thr Val Asp Leu Lys Arg Lys Pro
      50                      55                      60
Ala Asp Leu His Asn Leu Ala Pro Gly Thr His Pro Pro Phe Leu
      65                      70                      75
Thr Phe Asn Gly Asp Val Lys Thr Asp Val Asn Lys Ile Glu Glu
      80                      85                      90
Phe Leu Glu Glu Thr Leu Thr Pro Glu Lys Tyr Pro Lys Leu Ala
      95                      100                     105
Ala Lys His Arg Glu Ser Asn Thr Ala Gly Ile Asp Ile Phe Ser
     110                      115                     120
Lys Phe Ser Ala Tyr Ile Lys Asn Thr Lys Gln Gln Asn Asn Ala
     125                      130                     135
Ala Leu Glu Arg Gly Leu Thr Lys Ala Leu Lys Lys Leu Asp Asp
     140                      145                     150
Tyr Leu Asn Thr Pro Leu Pro Glu Glu Ile Asp Ala Asn Thr Cys
     155                      160                     165
Gly Glu Asp Lys Gly Ser Arg Arg Lys Phe Leu Asp Gly Asp Glu
     170                      175                     180
Leu Thr Leu Ala Asp Cys Asn Leu Leu Pro Lys Leu His Val Val
     185                      190                     195
Lys Ile Val Ala Lys Lys Tyr Arg Asn Tyr Asp Ile Pro Ala Glu
     200                      205                     210
Met Thr Gly Leu Trp Arg Tyr Leu Lys Asn Ala Tyr Ala Arg Asp
     215                      220                     225
Glu Phe Thr Asn Thr Cys Ala Ala Asp Ser Glu Ile Glu Leu Ala
     230                      235                     240
Tyr Ala Asp Val Ala Lys Arg Leu Ser Arg Ser
     245                      250

```

<210> 12

<211> 323

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1267774CD1

<400> 12

```

Met Gly Leu Phe Asp Arg Gly Val Gln Met Leu Leu Thr Thr Val
  1                      5                      10                      15
Gly Ala Phe Ala Ala Phe Ser Leu Met Thr Ile Ala Val Gly Thr
      20                      25                      30
Asp Tyr Trp Leu Tyr Ser Arg Gly Val Cys Lys Thr Lys Ser Val
      35                      40                      45
Ser Glu Asn Glu Thr Ser Lys Lys Asn Glu Glu Val Met Thr His
      50                      55                      60
Ser Gly Leu Trp Arg Thr Cys Cys Leu Glu Gly Asn Ser Lys Gly
      65                      70                      75
Leu Cys Lys Gln Ile Asp His Phe Pro Glu Asp Ala Asp Tyr Glu
      80                      85                      90
Ala Asp Thr Ala Glu Tyr Phe Leu Arg Ala Val Arg Ala Ser Ser
      95                      100                     105
Ile Phe Pro Ile Leu Ser Val Ile Leu Leu Phe Met Gly Gly Leu
     110                      115                     120

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Cys Ile Ala Ala Ser Glu Phe Tyr Lys Thr Arg His Asn Ile Ile
      125                      130                      135
Leu Ser Ala Gly Ile Phe Phe Val Ser Ala Gly Leu Ser Asn Ile
      140                      145                      150
Ile Gly Ile Ile Val Tyr Ile Ser Ala Asn Ala Gly Asp Pro Ser
      155                      160                      165
Lys Ser Asp Ser Lys Lys Asn Ser Tyr Ser Tyr Gly Trp Ser Phe
      170                      175                      180
Tyr Phe Gly Ala Leu Ser Phe Ile Ile Ala Glu Met Val Gly Val
      185                      190                      195
Leu Ala Val His Met Phe Ile Asp Arg His Lys Gln Leu Arg Ala
      200                      205                      210
Thr Ala Arg Ala Thr Asp Tyr Leu Gln Ala Ser Ala Ile Thr Arg
      215                      220                      225
Ile Pro Ser Tyr Arg Tyr Arg Tyr Gln Arg Arg Ser Arg Ser Ser
      230                      235                      240
Ser Arg Ser Thr Glu Pro Ser His Ser Arg Asp Ala Ser Pro Val
      245                      250                      255
Gly Ile Lys Gly Phe Asn Thr Leu Pro Ser Thr Glu Ile Ser Met
      260                      265                      270
Tyr Thr Leu Ser Arg Asp Pro Leu Lys Ala Ala Thr Thr Pro Thr
      275                      280                      285
Ala Thr Tyr Asn Ser Asp Arg Asp Asn Ser Phe Leu Gln Val His
      290                      295                      300
Asn Cys Ile Gln Lys Glu Asn Lys Asp Ser Leu His Ser Asn Thr
      305                      310                      315
Ala Asn Arg Arg Thr Thr Pro Val
      320

```

<210> 13

<211> 51

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1817329CD1

<400> 13

```

Met Asn Gln Gly Ser Gly Leu Asp Leu Leu Lys Ile Ser Tyr Gly
  1                      5                      10                      15
Lys Gly Ala Arg Arg Lys Asn Arg Phe Lys Gly Ser Asp Gly Ser
      20                      25                      30
Thr Ser Ser Asp Thr Thr Ser Asn Ser Phe Val Arg Gln Val Arg
      35                      40                      45
Val Leu Ser Ser Trp Phe
      50

```

<210> 14

<211> 113

<212> PRT

<213> Homo sapiens

<220>

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<221> misc_feature

<223> Incyte ID No: 3273307CD1

<400> 14

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Met Glu Gln Arg Lys Leu Asn Asp Gln Ala Asn Thr Leu Val Asp
 1          5          10          15
Leu Ala Lys Thr Gln Asn Ile Met Tyr Asp Met Ile Ser Asp Leu
          20          25          30
Asn Glu Arg Ser Glu Asp Phe Glu Lys Arg Ile Val Thr Leu Glu
          35          40          45
Thr Lys Leu Glu Thr Leu Ile Gly Ser Ile His Ala Leu Pro Gly
          50          55          60
Leu Ile Ser Gln Thr Ile Arg Gln Gln Gln Arg Asp Phe Ile Glu
          65          70          75
Ala Gln Met Glu Ser Tyr Asp Lys His Val Thr Tyr Asn Ala Glu
          80          85          90
Arg Ser Arg Ser Ser Ser Arg Arg Arg Arg Ser Ser Ser Thr Ala
          95          100          105
Pro Pro Thr Ser Ser Glu Ser Ser
          110

```

<210> 15

<211> 215

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 3824833CD1

<400> 15

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Met His Arg Asp Ala Trp Leu Pro Arg Pro Ala Phe Ser Leu Thr
 1          5          10          15
Gly Leu Ser Leu Phe Phe Ser Leu Val Pro Pro Gly Arg Ser Met
          20          25          30
Glu Val Thr Val Pro Ala Thr Leu Asn Val Leu Asn Gly Ser Asp
          35          40          45
Ala Arg Leu Pro Cys Thr Phe Asn Ser Cys Tyr Thr Val Asn His
          50          55          60
Lys Gln Phe Ser Leu Asn Trp Thr Tyr Gln Glu Cys Asn Asn Cys
          65          70          75
Ser Glu Glu Met Phe Leu Gln Phe Arg Met Lys Ile Ile Asn Leu
          80          85          90
Lys Leu Glu Arg Phe Gln Asp Arg Val Glu Phe Ser Gly Asn Pro
          95          100          105
Ser Lys Tyr Asp Val Ser Val Met Leu Arg Asn Val Gln Pro Glu
          110          115          120
Asp Glu Gly Ile Tyr Asn Cys Tyr Ile Met Asn Pro Pro Asp Arg
          125          130          135
His Arg Gly His Gly Lys Ile His Leu Gln Val Leu Met Glu Glu
          140          145          150
Pro Pro Glu Arg Asp Ser Thr Val Ala Val Ile Val Gly Ala Ser
          155          160          165
Val Gly Gly Phe Leu Ala Val Val Ile Leu Val Leu Met Val Val
          170          175          180

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Lys Cys Val Arg Arg Lys Lys Glu Gln Lys Leu Ser Thr Asp Asp
 185 190 195
 Leu Lys Thr Glu Glu Glu Gly Lys Thr Asp Gly Glu Gly Asn Pro
 200 205 210
 Asp Asp Gly Ala Lys
 215

<210> 16
 <211> 235
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte ID No: 2069907CD1

<400> 16
 Met Phe Ile Trp Thr Ser Gly Arg Thr Ser Ser Ser Tyr Arg His
 1 5 10 15
 Asp Glu Lys Arg Asn Ile Tyr Gln Lys Ile Arg Asp His Asp Leu
 20 25 30
 Leu Asp Lys Arg Lys Thr Val Thr Ala Leu Lys Ala Gly Glu Asp
 35 40 45
 Arg Ala Ile Leu Leu Gly Leu Ala Met Met Val Cys Ser Ile Met
 50 55 60
 Met Tyr Phe Leu Leu Gly Ile Thr Leu Leu Arg Ser Tyr Met Gln
 65 70 75
 Ser Val Trp Thr Glu Glu Ser Gln Cys Thr Leu Leu Asn Ala Ser
 80 85 90
 Ile Thr Glu Thr Phe Asn Cys Ser Phe Ser Cys Gly Pro Asp Cys
 95 100 105
 Trp Lys Leu Ser Gln Tyr Pro Cys Pro Gln Val Tyr Val Asn Leu
 110 115 120
 Thr Ser Ser Gly Glu Lys Leu Leu Leu Tyr His Thr Glu Glu Thr
 125 130 135
 Ile Lys Ile Asn Gln Lys Cys Ser Tyr Ile Pro Lys Cys Gly Lys
 140 145 150
 Asn Phe Glu Glu Ser Met Ser Leu Val Asn Val Val Met Glu Asn
 155 160 165
 Phe Arg Lys Tyr Gln His Phe Ser Cys Tyr Ser Asp Pro Glu Gly
 170 175 180
 Asn Gln Lys Ser Val Ile Leu Thr Lys Leu Tyr Ser Ser Asn Val
 185 190 195
 Leu Phe His Ser Leu Phe Trp Pro Thr Cys Met Met Ala Gly Gly
 200 205 210
 Val Ala Ile Val Ala Met Val Lys Leu Thr Gln Tyr Leu Ser Leu
 215 220 225
 Leu Cys Glu Arg Ile Gln Arg Ile Asn Arg
 230 235

<210> 17
 <211> 234
 <212> PRT
 <213> Homo sapiens

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<220>
 <221> misc_feature
 <223> Incyte ID No: 2243917CD1

<400> 17
 Met Ala Glu Asn His Cys Glu Leu Leu Ser Pro Ala Arg Gly Gly
 1 5 10 15
 Ile Gly Ala Gly Leu Gly Gly Gly Leu Cys Arg Arg Cys Ser Ala
 20 25 30
 Gly Leu Gly Ala Leu Ala Gln Arg Pro Gly Ser Val Ser Lys Trp
 35 40 45
 Val Arg Leu Asn Val Gly Gly Thr Tyr Phe Leu Thr Thr Arg Gln
 50 55 60
 Thr Leu Cys Arg Asp Pro Lys Ser Phe Leu Tyr Arg Leu Cys Gln
 65 70 75
 Ala Asp Pro Asp Leu Asp Ser Asp Lys Asp Glu Thr Gly Ala Tyr
 80 85 90
 Leu Ile Asp Arg Asp Pro Thr Tyr Phe Gly Pro Val Leu Asn Tyr
 95 100 105
 Leu Arg His Gly Lys Leu Val Ile Asn Lys Asp Leu Ala Glu Glu
 110 115 120
 Gly Val Leu Glu Glu Ala Glu Phe Tyr Asn Ile Thr Ser Leu Ile
 125 130 135
 Lys Leu Val Lys Asp Lys Ile Arg Glu Arg Asp Ser Lys Thr Ser
 140 145 150
 Gln Val Pro Val Lys His Val Tyr Arg Val Leu Gln Cys Gln Glu
 155 160 165
 Glu Glu Leu Thr Gln Met Val Ser Thr Met Ser Asp Gly Trp Lys
 170 175 180
 Phe Glu Gln Leu Val Ser Ile Gly Ser Ser Tyr Asn Tyr Gly Asn
 185 190 195
 Glu Asp Gln Ala Glu Phe Leu Cys Val Val Ser Lys Glu Leu His
 200 205 210
 Asn Thr Pro Tyr Gly Thr Ala Ser Glu Pro Ser Glu Lys Ala Lys
 215 220 225
 Ile Leu Gln Glu Arg Gly Ser Arg Met
 230

<210> 18
 <211> 301
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte ID No: 2597476CD1

<400> 18
 Met Val Phe Thr Gln Ala Pro Ala Glu Ile Met Gly His Leu Arg
 1 5 10 15
 Ile Arg Ser Leu Leu Ala Arg Gln Cys Leu Ala Glu Phe Leu Gly
 20 25 30
 Val Phe Val Leu Met Leu Leu Thr Gln Gly Ala Val Ala Gln Ala
 35 40 45
 Val Thr Ser Gly Glu Thr Lys Gly Asn Phe Phe Thr Met Phe Leu

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50	55	60
Ala Gly Ser Leu	Ala Val Thr Ile Ala Ile Tyr Val Gly Gly Asn	
65	70	75
Val Ser Gly Ala His Leu Asn Pro Ala Phe Ser Leu Ala Met Cys		
80	85	90
Ile Val Gly Arg Leu Pro Trp Val Lys Leu Pro Ile Tyr Ile Leu		
95	100	105
Val Gln Leu Leu Ser Ala Phe Cys Ala Ser Gly Ala Thr Tyr Val		
110	115	120
Leu Tyr His Asp Ala Leu Gln Asn Tyr Thr Gly Gly Asn Leu Thr		
125	130	135
Val Thr Gly Pro Lys Glu Thr Ala Ser Ile Phe Ala Thr Tyr Pro		
140	145	150
Ala Pro Tyr Leu Ser Leu Asn Asn Gly Phe Leu Asp Gln Val Leu		
155	160	165
Gly Thr Gly Met Leu Ile Val Gly Leu Leu Ala Ile Leu Asp Arg		
170	175	180
Arg Asn Lys Gly Val Pro Ala Gly Leu Glu Pro Val Val Val Gly		
185	190	195
Met Leu Ile Leu Ala Leu Gly Leu Ser Met Gly Ala Asn Cys Gly		
200	205	210
Ile Pro Leu Asn Pro Ala Arg Asp Leu Gly Pro Arg Leu Phe Thr		
215	220	225
Tyr Val Ala Gly Trp Gly Pro Glu Val Phe Ser Ala Gly Asn Gly		
230	235	240
Trp Trp Trp Val Pro Val Val Ala Pro Leu Val Gly Ala Thr Val		
245	250	255
Gly Thr Ala Thr Tyr Gln Leu Leu Val Ala Leu His His Pro Glu		
260	265	270
Gly Pro Glu Pro Ala Gln Asp Leu Val Ser Ala Gln His Lys Ala		
275	280	285
Ser Glu Leu Glu Thr Pro Ala Ser Ala Gln Met Leu Glu Cys Lys		
290	295	300
Leu		

<210> 19
 <211> 2994
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> Incyte ID No: 1568324CB1

<400> 19
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 tgactgacct ctacctctgc agggaaagg ggcagggag tctgaaagct ccaggagcag 120
 cagaaggccc agtggccggt ctccaaccag tactgagaag cgcagtagct tcgagtccat 180
 ttcttccttg ccagaggttg agccggaccc tgaggctggg agtgagcaag aggtattttc 240
 tgctgtggaa gggcccagtg ccgaggagac gccttcagac acagaatctc cagaagtcct 300
 ggagacacag cttgatgccc accagggcct tctggggatg gacccccag gtgacatggt 360
 ggacttcgtg gcagctgaga gcaactgagga ccttaaggcc ctgagcagcg aggaggaaga 420
 agaaatggga ggtgccgccc aggagcctga gagccttctg ccacctctg tgctggacca 480
 ggccagcgtc attgcccagc gatttgtcag cagcttctct cggcggagca gcgtggcaca 540
 ggaggacagc aagtcagtg gctttgggag cccgcggctg gtcagccgga gcagcagcgt 600

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gctcagcctg gagggcagcg agaagggcct ggcccggcat ggagtgcca cagactccct 660
cagctgtcag ctctccccag aagtggacat cagtgtgggg gtggccacag aggacagccc 720
ttctgtcaat gggatggagc ccccaagccc aggctgccc gtggagcctg accggtcttc 780
ctgcaagaag aaggaatcag cactctccac ccgagaccgg ctgttgctag acaagattaa 840
gagctattat gaaaatgcag aacaccatga tgcaggcttc agcgtccgtc gccgggagag 900
cctctcctac atccccaaa gactggtaag aaactccatc tccaggttca acagccttcc 960
ccggccagac ccagagccag tacctccagt ggggagcaag agacaggtgg gctccccggc 1020
gacttcgtgg gccctgtttg agctcccagg accaagccag gcagtcaaag gggacccacc 1080
tcccatctca gatgctgagt tccgcccac ttcagaaatt gtgaagatct gggagggaat 1140
ggagtcttcc ggagggagcc ctgggaaggg gccaggccag ggccaggcca atggctttga 1200
cctgcatgag ccactcttca tcttgagga gcatgagctg ggagccatca cagaggagtc 1260
ggccactgcc tccccggaaa gctcctctcc cactgagggg cgcagcccgg ccacctggc 1320
ccgggagctg aaagagctgg tgaaggagct gagcagcagt acccaggggg agctggtggc 1380
cccactgcac ccccgcatcg tgcagctctc ccacgtaatg gacagccacg tgagcgagcg 1440
cgtcaagaac aaggtctacc agctggcccg ccagtacagc ctccggatca agagcaacaa 1500
gccagtgatg gccaggccac cactgcagtg ggaaaagggtg gcccctgaga gggatgggaa 1560
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WO 00/12711

PCT/US99/20468

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WO 00/12711

PCT/US99/20468

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1877

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WO 00/12711

PCT/US99/20468

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<211> 1154

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<213> Homo sapiens

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WO 00/12711

PCT/US99/20468

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WO 00/12711

PCT/US99/20468

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 <222> 790, 827, 860
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<213> Homo sapiens

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<210> 30

<211> 1478

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<213> Homo sapiens

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<223> Incyte ID No: 1267774CB1

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<211> 1971

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 1817329CB1

<400> 31

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 <212> DNA
 <213> Homo sapiens

<220>
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 <223> Incyte ID No: 3273307CB1

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<211> 1224

<212> DNA

<213> Homo sapiens

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<223> Incyte ID No: 3824833CB1

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<213> Homo sapiens

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aaacagtcac agcactgaag gcaggagagg accgagctat tctcctggga ctggctatga 540
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agagcgtgtg gaccgaagag tctcaatgca ccttgetgaa tgcgtccatc acggaaacat 660
ttaactgctc cttcagctgt ggtccagact gctggaaact ttctcagtac ccctgcccc 720
aggtgtacgt taacctgact tcttcggggg aaaagctcct cctctaccac acagaagaga 780
caataaaaaat caatcagaag tgctcctata tacctaaatg tggaaaaaat tttgaagaat 840
ccatgtccct ggtgaatgtt gtcattgaaa acttcaggaa gtatcaacac ttctcctgct 900
attctgaccc agaaggaaac cagaagagtgt ttatcctaac caaactctac agttccaacg 960
tgctgttcca ttcactcttc tggccaacct gtatgatggc tgggggtgtg gcaattgttg 1020
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gataaatgca aaaatggata aaataatttt tgttaaagct caaatactgt tttctttcat 1140
tcttcaccaa agaaccttaa gtttgtaacg tgcagtctgt tatgagttcc ctaatatatt 1200
cttatatgta gagcaataat gcaaaagctg ttctatatgc aaacatgatg tctttattat 1260
tcaggagaat aaataactgt tttgtgttaa aaaaaaaaaa 1300

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<210> 35

<211> 1060

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2243917CB1

<400> 35

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ccagcgccct ggcagcgtgt ccaagtgggt ccgactcaac gtcggcgga cctacttct 180
caccactcgg cagaccctgt gccgggaccc gaaatccttc ctgtaccgct tatgccaggc 240
cgatcccgac ctggactcag acaaggatga aacaggcgcc tatttaaatcg acagagaccc 300
cacctacttt gggcctgtgc tgaactacct gagacacggc aagctggtga ttaacaaaga 360
cctcgcgagg gaaggagtgt tggaggaagc agaattttac aatatcacct cattaataaa 420
acttgtaaaag gacaaaatta gagaacgaga cagcaaaaca tcgcagggtg ctgtgaagca 480
tgtgtaccgt gtgctgcagt gccaggagga ggagctcacg cagatggtgt ccaccatgtc 540
cgacggctgg aagttcgagc agttggtcag catcggtcc tcttacaact atgggaacga 600
agaccaagcc gagttcctct gtgtggtgtc caaggagctg cacaacaccc cgtacggtac 660
ggccagcgag cccagcgaga aggccaagat tttgcaagaa cgaggctcaa ggatgtgagg 720
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gtgtgaatcc ttttttgct ctgaggtggg tgggtgagaga cgggccagc tgtccaaggc 900
cagacgtccc caagttgggg gagcacggcg gccgggtggg cgctgcctct tggggggggc 960
tcgctctgtt ttttccaagt gccacgtggg actgaggcag acactcccag tcagcccgct 1020
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<210> 36

<211> 1815

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 2597476CB1

<400> 36

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gcttggcaga gtttctgggt gtgtttgtac tcatgtcctt caccgaagga gctgtggccc 180
aggctgtcac cagtggagaa accaaaggca acttcttcac catgtttctg gctggctctc 240
tggccgttac gatagccatc tacgtgggtg gtaacgtctc aggggcccac ctgaatccag 300
ccttctccct ggccatgtgc atcgttggac gcctcccctg ggtcaagctc cccatttaca 360
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aagcctcaga gttggaaact cctgcctcag ctcagatgct ggagtgtgaa ctatgattag 960
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aaaaaaaaaa aaaaaa 1815

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<210> 37

<211> 315

<212> PRT

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> GenBank ID No: g2924369

<400> 37

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Met Leu Gly Trp Val Gln Arg Val Leu Pro Gln Pro Pro Gly Thr
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Pro Gln Lys Thr Glu Glu Gly Ala Gly Pro Gln Pro Glu Thr Glu
  20                      25                      30
Ser Lys Pro Glu Ala Asn Pro Gln Pro Glu Pro Glu Val Gln Pro
  35                      40                      45
Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Pro Ala
  50                      55                      60
Pro Glu Glu Ala Ala Pro Glu Val Gln Thr Leu Pro Pro Glu Glu
  65                      70                      75
Pro Val Glu Gly Glu Asp Val Ala Glu Ala Gly Pro Ser Leu Gln
  80                      85                      90
Glu Thr Gln Glu Ala Asp Pro Pro Gln Pro Thr Ser Gln Ala Gln
  95                      100                     105

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Phe Phe Gly Ile	Met Pro Asp Val Ile	Gly Asp Cys Cys Tyr Glu	125	130	135
Asp Tyr Arg Asp	Arg Lys Arg Glu Asn	Ala Glu Arg Leu Met Asp	140	145	150
Asp Lys Leu Ser	Glu Asn Gly Asp Gln	Asn Leu Gln Gln Leu Thr	155	160	165
Asn Met Arg Gln	Lys Met Trp Arg Ala	Phe Glu Asn Pro His Thr	170	175	180
Ser Thr Ser Ala	Leu Val Phe Tyr Tyr	Val Thr Gly Phe Phe Ile	185	190	195
Ala Val Ser Val	Met Ala Asn Val Val	Glu Thr Val Pro Cys Gly	200	205	210
His Arg Pro Gly	Arg Ala Gly Thr Leu	Pro Cys Gly Glu Arg Tyr	215	220	225
Lys Ile Val Phe	Phe Cys Leu Asp Thr	Ala Cys Val Met Ile Phe	230	235	240
Thr Ala Glu Tyr	Leu Leu Arg Leu Phe	Ala Ala Pro Asp Arg Cys	245	250	255
Lys Phe Val Arg	Ser Val Met Ser Ile	Ile Asp Val Val Ala Ile	260	265	270
Met Pro Tyr Tyr	Ile Gly Leu Gly Ile	Thr Asp Asn Asp Asp Val	275	280	285
Ser Gly Ala Phe	Val Thr Leu Arg Val	Phe Arg Val Phe Arg Ile	290	295	300
Phe Lys Phe Ser	Arg His Ser Gln Gly	Leu Arg Ile Leu Gly Tyr	305	310	315
Thr Leu Lys Ser	Cys Ala Ser Glu Leu	Gly Phe Leu Val Phe Ser	320	325	330
Leu Ala Met Ala	Ile Ile Ile Phe Ala	Thr Val Met Phe Tyr Ala	335	340	345
Glu Lys Asn Val	Asn Gly Thr Asn Phe	Thr Ser Ile Pro Ala Ala	350	355	360
Phe Trp Tyr Thr	Ile Val Thr Met Thr	Thr Leu Gly Tyr Gly Asp	365	370	375
Met Val Pro Glu	Thr Ile Ala Gly Lys	Ile Val Gly Gly Val Cys	380	385	390
Ser Leu Ser Gly	Val Leu Val Ile Ala	Leu Pro Val Pro Val Ile	395	400	405
Val Ser Asn Phe	Ser Arg Ile Tyr His	Gln Asn Gln Arg Ala Asp	410	415	420
Lys Arg Lys Ala	Gln Arg Lys Ala Arg	Leu Ala Arg Ile Arg Ile	425	430	435
Ala Lys Ala Ser	Ser Gly Ala Ala Phe	Val Ser Lys Lys Lys Ala	440	445	450
Ala Glu Ala Arg	Trp Ala Ala Gln Glu	Ser Gly Ile Glu Leu Asp	455	460	465
Asp Asn Tyr Arg	Asp Glu Asp Ile Phe	Glu Leu Gln His His His	470	475	480
Leu Leu Arg Cys	Leu Glu Lys Thr Thr	Met	485	490	

<210> 39

<211> 478

<212> PRT

<213> Polyorchis penicillatus

WO 00/12711

PCT/US99/20468

<220>

<221> misc_feature

<223> GenBank ID No: g1763619

<400> 39

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Gly Ile Gly Trp Val Pro Ile Ser Ser Lys Glu Pro Ser Ala Tyr
           20           25           30
Leu Asn Lys Gln Val Cys Asn Glu Asn Glu Lys Asn Asn Ala Lys
           35           40           45
Leu Thr Ile Asn Val Ser Gly Arg Arg Tyr Gln Thr Tyr Ser His
           50           55           60
Thr Leu Arg Lys Phe Lys Glu Thr Leu Leu Gly Ser Gln Glu Arg
           65           70           75
Asp Tyr Phe Tyr Asp Glu Ser Leu Glu Glu Tyr Tyr Phe Asp Arg
           80           85           90
Asp Pro Asp Leu Phe Arg His Ile Leu Asn Tyr Tyr Arg Thr Gly
           95          100          105
Lys Leu His Phe Pro Lys Asn Glu Cys Val Ser Ser Phe Glu Asp
          110          115          120
Glu Leu Thr Phe Phe Gly Ile Lys Gly Phe Asn Ile Asn Asn Cys
          125          130          135
Cys Trp Asp Asp Tyr His Asp Lys Lys Arg Glu Cys Thr Glu Arg
          140          145          150
Leu Asn Glu Ser Asp Val Met Leu Thr Ser Ser Glu Ile Asn Glu
          155          160          165
Lys Ser Asp Thr Met Gly Ile Asp Val Gln Met Asn Asn His Gln
          170          175          180
Ala Lys Asn Phe Arg Gln Lys Val His Gly Leu Phe Glu Asn Pro
          185          190          195
Gln Ser Thr Phe Leu Ala Arg Ile Leu Tyr Tyr Ile Thr Gly Phe
          200          205          210
Phe Ile Ala Val Ser Val Gly Ser Thr Ile Ile Glu Thr Ile Asp
          215          220          225
Cys Ser Ala Asn Arg Pro Cys Gly Glu Val Tyr Asn Lys Ile Phe
          230          235          240
Phe Asn Ile Glu Ala Val Cys Val Val Val Phe Thr Ile Glu Tyr
          245          250          255
Leu Ala Arg Leu Tyr Ser Ala Pro Cys Arg Phe Arg His Ala Arg
          260          265          270
Ile Ser Leu Ser Ile Ile Asp Val Ile Ala Ile Leu Pro Phe Tyr
          275          280          285
Ile Gly Leu Ala Met Thr Lys Thr Ser Ile Ser Gly Ala Phe Val
          290          295          300
Ser Leu Arg Val Phe Arg Val Phe Arg Ile Phe Lys Phe Ser Arg
          305          310          315
His Ser Lys Gly Leu Arg Ile Leu Gly Ser Thr Leu Thr Ser Cys
          320          325          330
Ala Ser Glu Leu Gly Phe Leu Leu Phe Ser Leu Ser Met Ala Ile
          335          340          345
Ile Ile Phe Ala Thr Val Val Phe Tyr Val Glu Lys Asp Val Asn
          350          355          360
Asp Ser Asp Phe Thr Ser Ile Pro Ala Ser Phe Trp Tyr Thr Ile
          365          370          375
Val Thr Met Thr Thr Leu Gly Tyr Gly Asp Met Val Pro Lys Thr

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	380		385		390
Ile Pro Gly Lys	Leu Val Gly Ser Ile	Cys Ser Leu Ser Gly Val			
	395		400		405
Leu Val Ile Ala	Leu Pro Val Pro Val	Ile Val Ser Asn Phe Ser			
	410		415		420
Arg Ile Tyr Leu	Gln Asn Gln Arg Ala	Asp Lys Arg Arg Ala Asn			
	425		430		435
Gln Lys Leu Arg	Asn Lys Cys Glu Glu	Lys Glu Glu Lys Lys Lys			
	440		445		450
Glu Ser Ser Ser	Glu Thr Val Thr Arg	Phe Ile Ile Ser Asn Gln			
	455		460		465
Met Tyr Thr Ile	Phe Ser Met Lys Phe	Ala Leu Thr Arg			
	470		475		

<210> 40

<211> 732

<212> PRT

<213> Rattus norvegicus

<220>

<221> misc_feature

<223> GenBank ID No: g2564072

<400> 40

Met Asp Thr Ser Gly His Phe His Glu Ser Gly Val Gly Asp Leu		
1	5	10 15
Asp Glu Asp Pro Lys Cys Pro Cys Pro Ser Ser Gly Asp Glu Gln		
	20	25 30
Gln Gln Gln Gln Gln Pro Pro Pro Pro Ser Ala Pro Pro Ala Val		
	35	40 45
Pro Gln Gln Pro Pro Gly Pro Leu Leu Gln Pro Gln Pro Pro Gln		
	50	55 60
Leu Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln		
	65	70 75
Gln Gln Gln Gln Gln Ala Pro Leu His Pro Leu Pro Gln Leu Ala		
	80	85 90
Gln Leu Gln Ser Gln Val Val His Pro Gly Leu Leu His Ser Ser		
	95	100 105
Pro Thr Ala Phe Arg Ala Pro Asn Ser Ala Asn Ser Thr Ala Ile		
	110	115 120
Leu His Pro Ser Ser Arg Gln Gly Ser Gln Leu Asn Leu Asn Asp		
	125	130 135
His Leu Val Gly His Ser Pro Ser Ser Thr Ala Thr Ser Gly Pro		
	140	145 150
Gly Gly Gly Ser Arg His Arg Gln Ala Ser Pro Val Val His Arg		
	155	160 165
Arg Asp Ser Asn Pro Phe Thr Glu Ile Ala Met Ser Ser Cys Lys		
	170	175 180
Tyr Ser Gly Gly Val Met Lys Pro Leu Asn Arg Leu Ser Ala Ser		
	185	190 195
Arg Arg Asn Leu Ile Glu Ala Glu Pro Glu Gly Gln Pro Leu Gln		
	200	205 210
Leu Phe Ser Pro Ser Asn Pro Pro Glu Ile Ile Ile Ser Ser Arg		
	215	220 225
Glu Asp Asn His Ala His Gln Thr Leu Leu His His Pro Asn Ala		

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Thr His Asn His	230	Thr Ala Gly Thr	235	Thr Thr	240
	245		250		255
Phe Pro Lys Ala	Asn Lys Arg Lys Asn	Gln Asn Ile Gly Tyr Lys			
	260		265		270
Leu Gly His Arg	Arg Ala Leu Phe Glu	Lys Arg Lys Arg Leu Ser			
	275		280		285
Asp Tyr Ala Leu	Ile Phe Gly Met Phe	Gly Ile Val Val Met Val			
	290		295		300
Ile Glu Thr Glu	Leu Ser Trp Gly Leu	Tyr Ser Lys Asp Ser Met			
	305		310		315
Phe Ser Leu Ala	Leu Lys Cys Leu Ile	Ser Leu Ser Thr Ile Ile			
	320		325		330
Leu Leu Gly Leu	Ile Ile Ala Tyr His	Thr Arg Glu Val Gln Leu			
	335		340		345
Phe Val Ile Asp	Asn Gly Ala Asp Asp	Trp Arg Ile Ala Met Thr			
	350		355		360
Tyr Glu Arg Ile	Leu Tyr Ile Ser Leu	Glu Met Leu Val Cys Ala			
	365		370		375
Ile His Pro Ile	Pro Gly Glu Tyr Lys	Phe Phe Trp Thr Ala Arg			
	380		385		390
Leu Ala Phe Ser	Tyr Thr Pro Ser Arg	Ala Glu Ala Asp Val Asp			
	395		400		405
Ile Ile Leu Ser	Ile Pro Met Phe Leu	Arg Leu Tyr Leu Ile Ala			
	410		415		420
Arg Val Met Leu	Leu His Ser Lys Leu	Phe Thr Asp Ala Ser Ser			
	425		430		435
Arg Ser Ile Gly	Ala Leu Asn Lys Ile	Asn Phe Asn Thr Arg Phe			
	440		445		450
Val Met Lys Thr	Leu Met Thr Ile Cys	Pro Gly Thr Val Leu Leu			
	455		460		465
Val Phe Ser Ile	Ser Leu Trp Ile Ile	Ala Ala Trp Thr Val Arg			
	470		475		480
Val Cys Glu Arg	Tyr His Asp Gln Gln	Asp Val Thr Ser Asn Phe			
	485		490		495
Leu Gly Ala Met	Trp Leu Ile Ser Ile	Thr Phe Leu Ser Ile Gly			
	500		505		510
Tyr Gly Asp Met	Val Pro His Thr Tyr	Cys Gly Lys Gly Val Cys			
	515		520		525
Leu Leu Thr Gly	Ile Met Gly Ala Gly	Cys Thr Ala Leu Val Val			
	530		535		540
Ala Val Val Ala	Arg Lys Leu Glu Leu	Thr Lys Ala Glu Lys His			
	545		550		555
Val His Asn Phe	Met Met Asp Thr Gln	Leu Thr Lys Arg Ile Lys			
	560		565		570
Asn Ala Ala Ala	Asn Val Leu Arg Glu	Thr Trp Leu Ile Tyr Lys			
	575		580		585
His Thr Lys Leu	Leu Lys Lys Ile Asp	His Ala Lys Val Arg Lys			
	590		595		600
His Gln Arg Lys	Phe Leu Gln Ala Ile	His Gln Leu Arg Gly Val			
	605		610		615
Lys Met Glu Gln	Arg Lys Leu Ser Asp	Gln Ala Asn Thr Leu Val			
	620		625		630
Asp Leu Ser Lys	Met Gln Asn Val Met	Tyr Asp Leu Ile Thr Glu			
	635		640		645
Leu Asn Asp Arg	Ser Glu Asp Leu Glu	Lys Gln Ile Gly Ser Leu			

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	650		655		660
Glu Ser Lys Leu	Glu His Leu Thr Ala	Ser Phe Asn Ser Leu	Pro		
	665		670		675
Leu Leu Ile Ala	Asp Thr Leu Arg Gln	Gln Gln Gln Gln Leu	Leu		
	680		685		690
Thr Ala Phe Val	Glu Ala Arg Gly Ile	Ser Val Ala Val Gly	Thr		
	695		700		705
Ser His Ala Pro	Pro Ser Asp Ser Pro	Ile Gly Ile Ser Ser	Thr		
	710		715		720
Ser Phe Pro Thr	Pro Tyr Thr Ser Ser	Ser Ser Cys			
	725		730		

<210> 41
 <211> 269
 <212> PRT
 <213> Rattus norvegicus

<220>
 <221> misc_feature
 <223> GenBank ID No: g2350843

<400> 41

Met Ala Gly Ser Val	Leu Glu Asn Ile	Gln Ser Val Leu	Gln Lys
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Thr Trp Val Arg	Glu Phe Leu Ala	Glu Phe Leu Asn Thr	Tyr Val
	20	25	30
Leu Met Val Phe	Gly Leu Gly Ser Val	Ala His Met Val Leu	Gly
	35	40	45
Glu Arg Leu Gly	Ser Tyr Leu Gly Val	Asn Leu Gly Phe Gly	Phe
	50	55	60
Gly Val Thr Met	Gly Ile His Val Ala	Gly Gly Ile Ser Gly	Ala
	65	70	75
His Met Asn Pro	Ala Val Thr Phe Thr	Asn Cys Ala Leu Gly	Arg
	80	85	90
Met Ala Gly Arg	Lys Phe Pro Ile Tyr	Val Leu Gly Gln Phe	Leu
	95	100	105
Gly Ser Phe Leu	Ala Ala Ala Thr Thr	Tyr Leu Ile Phe Tyr	Gly
	110	115	120
Ala Ile Asn His	Tyr Ala Gly Glu Thr	Leu Leu Val Thr Gly	Pro
	125	130	135
Lys Ser Thr Ala	Asn Ile Phe Ala Thr	Tyr Leu Pro Glu His	Met
	140	145	150
Thr Leu Trp Arg	Gly Phe Val Asp Glu	Val Phe Val Thr Gly	Met
	155	160	165
Leu Gln Leu Cys	Ile Phe Ala Ile Thr	Asp Lys Leu Asn Ser	Pro
	170	175	180
Ala Leu Gln Gly	Thr Glu Pro Leu Met	Ile Gly Ile Leu Val	Cys
	185	190	195
Val Leu Gly Val	Ser Leu Gly Met Asn	Thr Gly Tyr Ala Ile	Asn
	200	205	210
Pro Ser Arg Asp	Leu Pro Pro Arg Phe	Phe Thr Phe Ile Ala	Gly
	215	220	225
Trp Gly Lys Lys	Val Phe Ser Ala Gly	Asn Asn Trp Trp Trp	Val
	230	235	240
Pro Val Val Ala	Pro Leu Leu Gly Ala	Tyr Leu Gly Gly Ile	Val

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<213> Homo sapiens

<220>

<221> misc_feature

<223> GenBank ID No: g1055345

<400> 43

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Met Val Lys Lys Leu Val Met Ala Gln Lys Arg Gly Glu Thr Arg
  1              5              10              15
Ala Leu Cys Leu Gly Val Thr Met Val Val Cys Ala Val Ile Thr
              20              25              30
Tyr Tyr Ile Leu Val Thr Thr Val Leu Pro Leu Tyr Gln Lys Ser
              35              40              45
Val Trp Thr Gln Glu Ser Lys Cys His Leu Ile Glu Thr Asn Ile
              50              55              60
Arg Asp Gln Glu Glu Leu Lys Gly Lys Lys Val Pro Gln Tyr Pro
              65              70              75
Cys Leu Trp Val Asn Val Ser Ala Ala Gly Arg Trp Ala Val Leu
              80              85              90
Tyr His Thr Glu Asp Thr Arg Asp Gln Asn Gln Gln Cys Ser Tyr
              95              100             105
Ile Pro Gly Ser Val Asp Asn Tyr Gln Thr Ala Arg Ala Asp Val
              110             115             120
Glu Lys Val Arg Ala Lys Phe Gln Glu Gln Gln Val Phe Tyr Cys
              125             130             135
Phe Ser Ala Pro Arg Gly Asn Glu Thr Ser Val Leu Phe Gln Arg
              140             145             150
Leu Tyr Gly Pro Gln Ala Leu Leu Phe Ser Leu Phe Trp Pro Thr
              155             160             165
Phe Leu Leu Thr Gly Gly Leu Leu Ile Ile Ala Met Val Lys Ser
              170             175             180
Asn Gln Tyr Leu Ser Ile Leu Ala Ala Gln Lys
              185             190

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<210> 44

<211> 308

<212> PRT

<213> Caenorhabditis elegans

<220>

<221> misc_feature

<223> GenBank ID No: g3292929

<400> 44

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Met Ser Thr Val Phe Ile Asn Ser Arg Lys Ser Pro Asn Val Leu
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Lys Lys Gln Gly Thr Asp Gln Trp Val Lys Leu Asn Val Gly Gly
              20              25              30
Thr Tyr Phe Leu Thr Thr Lys Thr Thr Leu Ser Arg Asp Pro Asn
              35              40              45
Ser Phe Leu Ser Arg Leu Ile Gln Glu Asp Cys Asp Leu Ile Ser
              50              55              60
Asp Arg Asp Glu Thr Gly Ala Tyr Leu Ile Asp Arg Asp Pro Lys
              65              70              75
Tyr Phe Ala Pro Val Leu Asn Tyr Leu Arg His Gly Lys Leu Val

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	80		85		90
Leu Asp Gly Val Ser Glu Glu Gly Val		Leu Glu Glu Ala Glu Phe			
	95		100		105
Tyr Asn Val Thr Gln Leu Ile Ala Leu		Leu Lys Glu Cys Ile Leu			
	110		115		120
His Arg Asp Gln Arg Pro Gln Thr Asp		Lys Lys Arg Val Tyr Arg			
	125		130		135
Val Leu Gln Cys Arg Glu Gln Glu Leu		Thr Gln Met Ile Ser Thr			
	140		145		150
Leu Ser Asp Gly Trp Arg Phe Glu Gln		Leu Ile Ser Met Gln Tyr			
	155		160		165
Thr Asn Tyr Gly Pro Phe Glu Asn Asn		Glu Phe Leu Cys Val Val			
	170		175		180
Ser Lys Glu Cys Gly Thr Thr Ala Gly		Arg Glu Leu Glu Leu Asn			
	185		190		195
Asp Arg Ala Lys Val Leu Gln Gln Lys		Gly Ser Arg Ile Asn Thr			
	200		205		210
Ile Ser His Ser Ala Thr Pro Thr Gln		His Gln Leu Asp Ala Ala			
	215		220		225
Lys Glu Ala Arg Ala Thr Ala Thr Ala		Thr Ser Asn Thr Thr Asn			
	230		235		240
His Thr Arg Ser Asp Gln Thr Gln Pro		Gln Ala Gln Ile Thr His			
	245		250		255
Gln Asp Gln Pro Glu Ser Pro Lys Gln		Ser Pro Gln Gly Asp Tyr			
	260		265		270
Ala Ser Phe Ala Phe Glu Thr Lys Leu		Thr Gly Thr Thr Ala Ile			
	275		280		285
Arg Phe Ser Pro Leu Trp Pro Phe Cys		Ala Leu Tyr Glu Val Cys			
	290		295		300
Ala Gly Val His Val Phe Asn Leu					
	305				

<210> 45
 <211> 295
 <212> PRT
 <213> Homo sapiens

<220>
 <221> misc_feature
 <223> GenBank ID No: g2887407

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 35 40 45
 Gln Ala Ile Leu Ser Arg Gly Arg Phe Gly Gly Val Ile Thr Ile
 50 55 60
 Asn Val Gly Phe Ser Met Ala Val Ala Met Ala Ile Tyr Val Ala
 65 70 75
 Gly Gly Val Ser Gly Gly His Ile Asn Pro Ala Val Ser Leu Ala
 80 85 90
 Met Cys Leu Phe Gly Arg Met Lys Trp Phe Lys Leu Pro Phe Tyr

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PCT/US99/20468

	95		100		105
Val Gly Ala Gln Phe	Leu Gly Ala Phe	Val Gly Ala Ala Thr	Val		
	110		115		120
Phe Gly Ile Tyr Tyr	Asp Gly Leu Met	Ser Phe Ala Gly Gly	Lys		
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Leu Leu Ile Val Gly	Glu Asn Ala Thr	Ala His Ile Phe Ala	Thr		
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Tyr Pro Ala Pro Tyr	Leu Ser Leu Ala	Asn Ala Phe Ala Asp	Gln		
	155		160		165
Val Val Ala Thr Met	Ile Leu Leu Ile	Ile Val Phe Ala Ile	Phe		
	170		175		180
Asp Ser Arg Asn Leu	Gly Ala Pro Arg	Gly Leu Glu Pro Ile	Ala		
	185		190		195
Ile Gly Leu Leu Ile	Ile Val Ile Ala	Ser Ser Leu Gly Leu	Asn		
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Ser Gly Cys Ala Met	Asn Pro Ala Arg	Asp Leu Ser Pro Arg	Leu		
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Phe Thr Ala Leu Ala	Gly Trp Gly Phe	Glu Val Phe Arg Ala	Gly		
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Asn Asn Phe Trp Trp	Ile Pro Val Val	Gly Pro Leu Val Gly	Ala		
	245		250		255
Val Ile Gly Gly Leu	Ile Tyr Val Leu	Val Ile Glu Ile His	His		
	260		265		270
Pro Glu Pro Asp Ser	Val Phe Lys Ala	Glu Gln Ser Glu Asp	Lys		
	275		280		285
Pro Glu Lys Tyr Glu	Leu Ser Val Ile	Met			
	290		295		